

INTERNATIONAL SEARCH REPORT

PCT/IB 03/04772

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65G47/32 B65B35/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65G B65B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | US 6 065 586 A (SOLERT HANS JUERGEN ET AL) 23 May 2000 (2000-05-23) claim 1; figures 4,5 | 1,2 |
| Y | --- | 4 |
| X | EP 0 440 848 A (BARILLA FLLI G & R) 14 August 1991 (1991-08-14) column 1 -column 2, line 28; figure 1 | 1,2 |
| X | PATENT ABSTRACTS OF JAPAN vol. 009, no. 055 (M-362), 9 March 1985 (1985-03-09) -& JP 59 190110 A (FUJIO ASAI), 27 October 1984 (1984-10-27) abstract --- -/-- | 1,2 |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

18 February 2004

Date of mailing of the international search report

25/02/2004

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| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y A | US 3 964 233 A (THOMAS LESLIE P) 22 June 1976 (1976-06-22) figures 5,8 ----- | 4 3,5 |

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INTERNATIONAL SEARCH REPORT

PCT/IB 03/04772

| Patent document cited in search report | | Publication date | | Patent family member(s) | Publication date |
|---|---|---------------------|----|----------------------------|---------------------|
| US 6065586 | A | 23-05-2000 | AU | 4552797 A | 19-03-1998 |
| | | | DE | 69708124 D1 | 13-12-2001 |
| | | | DE | 69708124 T2 | 11-04-2002 |
| | | | WO | 9808758 A1 | 05-03-1998 |
| | | | EP | 0923498 A1 | 23-06-1999 |
| | | | ES | 2167795 T3 | 16-05-2002 |
| | | | ID | 18302 A | 26-03-1998 |
| EP 0440848 | A | 14-08-1991 | CA | 2010457 A1 | 20-08-1991 |
| | | | EP | 0440848 A1 | 14-08-1991 |
| | | | AT | 83464 T | 15-01-1993 |
| | | | DE | 69000609 D1 | 28-01-1993 |
| | | | DE | 69000609 T2 | 13-05-1993 |
| | | | DK | 440848 T3 | 03-05-1993 |
| | | | ES | 2036850 T3 | 01-06-1993 |
| | | | GR | 3006924 T3 | 30-06-1993 |
| JP 59190110 | A | 27-10-1984 | JP | 1826417 C | 28-02-1994 |
| | | | JP | 5032291 B | 14-05-1993 |
| US 3964233 | A | 22-06-1976 | AU | 7217374 A | 12-02-1976 |
| | | | BE | 819232 A1 | 27-02-1975 |
| | | | CA | 1001593 A1 | 14-12-1976 |
| | | | CA | 1016509 A2 | 30-08-1977 |
| | | | DE | 2438440 A1 | 20-11-1975 |
| | | | DK | 424574 A | 16-11-1975 |
| | | | FR | 2271126 A1 | 12-12-1975 |
| | | | GB | 1452655 A | 13-10-1976 |
| | | | IT | 1017489 B | 20-07-1977 |
| | | | JP | 50146490 A | 25-11-1975 |
| | | | NL | 7410180 A | 18-11-1975 |

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